RSD Improves Veeam Backup Performance by 3X and Makes ERP System Lightning Fast

Refrigeration Supplies Distributor (RSD) is the largest independently owned refrigeration parts and HVAC equipment wholesaler in the western United States, and recently celebrated 112 years in business. Since inception, RSD has grown to include 79 locations covering Alaska, Arizona, California, Colorado, Idaho, Montana, Nevada, Oregon, Utah, and Washington.

In an increasingly competitive industry, RSD strives to set the mark for customer service. The company's success is built on honesty, quality, dependability and a guarantee of 100% satisfaction, and each employee's goal is to ensure customers receive a consistently superior service experience. A world-class IT infrastructure is a critical element in achieving these goals.

THE CHALLENGE

Prior to implementing DataCore software-defined storage, RSD was running production data, including its business-critical ERP system, on EMC storage. However, having a dual-controller single-disk array configuration would cause IT to constantly run into problems and experience failures. In addition to their DR and backups needing an upgrade, the company described the management of the storage system as "horrendous."

When RSD was going through an infrastructure upgrade, its IT solutions provider StablePath advised the company to implement DataCore software-defined storage to help alleviate the difficulties of its IT infrastructure. StablePath is known for providing complete IT infrastructure solutions that offer faster performance, efficient BC/DR solutions, a smaller footprint, and systems that are simpler to manage and less expensive to own and operate.

THE SOLUTION

A large part of the infrastructure upgrade involved virtualizing the ERP system among others, and a key consideration was the performance needed to power this business-critical asset. The ERP provider ran initial tests with DataCore software-defined storage for RSD and the results were impressive—not only did it meet the existing performance needs, it actually sped up the system significantly.

"DataCore software-defined storage has made our ERP system lightning quick—which wasn't always the case," said Jim Barnes, CIO of RSD. "Once we saw how fast DataCore was, the decision to move over was a no-brainer."

To their surprise, not only did the ERP system experience immediate performance gains, but their Veeam backups ran three times faster than before. Their DR replication RPO dramatically improved to less than two seconds and their VM-clone jobs became ultrafast overnight.

RSD has two DataCore software-defined storage nodes in the data center and corporate office that are 100% mirrored. If server upgrades or maintenance are required, IT can take one DataCore node down at any time—even during the business day. They are brought back up and resynchronized, and no one in the company has ever realized a difference.

Since moving to DataCore software-defined storage, RSD has also enjoyed 100% uptime—there hasn't been a single time when the system has gone down. For example, RSD experienced a situation in which electrical work was being performed in its data center; an electrician was rewiring to bring more power in and had done something incorrectly that accidentally popped a number of breakers. This took a large portion of the datacenter down, but not DataCore; it was one of the only elements to continuously operate without interruption.

"DataCore has enabled 100% uptime the entire time we have been using it, which is absolutely critical as it runs 99.9% of all of our data," Barnes noted. "If DataCore were to shut down, the whole data center would too."

Previously, RSD was doing straight backups to tapes, causing their Veeam backups to take a long time to complete. They decided to introduce DataCore as their new backup-to-disk solution for all their backups and the results were shocking. Every backup job was completing three times faster using software-defined storage as the target storage.

RSD is also using DataCore software-defined storage to replicate critical data to its disaster recovery site in Peoria, AZ. This replication happens almost in real-time, whereas before, it was held to a specific after-hours schedule, which presented the potential for significant data loss ramifications in the event of an emergency. With DataCore, once an order is placed it is over to the DR site within two seconds. In the event of a failure or natural disaster, copies of all critical data are ready to simply power on.

Furthermore, being able to run VMs on DataCore software-defined storage enables high availability on the servers. RSD's IT environment changes so frequently, and DataCore makes the process of DR backup and restore seamless.

RSD connects all ESX servers to DataCore so if anything were to go down, for example, RSD can roll it over and power it up on another ESX because the back end is DataCore and it's all connected—running on single storage from a single location. In a disaster scenario, ESX servers would be ready to be up and running in Peoria with a switch.

THE OUTCOME

PHYSICAL SERVER REDUCTION

With DataCore's help, RSD has effectively converted 60 of its physical servers to six virtual servers while making DataCore SDS the single layer of enterprise storage services for performance, high availability, disaster recovery, continuous data protection and Veeam's backup target. Their environment used to have multiple racks of equipment and now has been drastically reduced as they are virtualizing servers with ESXi and virtualizing storage with DataCore.

The reduction in physical servers has also resulted in massive cost savings. For example, before virtualizing its IT infrastructure with software-defined storage, RSD's data center had two commercial AC units operating at all times. After implementing DataCore, RSD was able to completely shut down one of the units, yielding significant savings in terms of electricity, wear and tear, and more. In fact, soon after deploying DataCore's SDS solution, the local utility company visited RSD's site to check that its equipment was reporting correctly because there was such a noticeable drop in power consumption!

All virtual machines are reading/writing to DataCore's virtual disks, as well as the ERP system and a number of other systems that require high performance. This was previously impossible because the storage simply wasn't fast enough.

LIGHTNING FAST ERP SYSTEM

The increased performance of the ERP system has also enabled RSD to implement advanced inventory management. It can load a live copy of the ERP data in a dev environment, update the database and have the most updated information live and available within a few hours.

Even RSD customers have noticed a difference. The high performance allows stability of the ERP system when writing orders/tickets, and users are not constantly waiting for the next screen to load. Additionally, processing time in retail locations is reduced because of faster response times, speeding up the order process for salespeople.

Another huge benefit is storage diversity. RSD is running two environments with DataCore software-defined storage, all containing different equipment from a variety of vendors, including HP, Dell and Lenovo. DataCore enables all of these platforms to seamlessly communicate with each other.

HA AND COMPREHENSIVE DR

RSD has found DataCore's continuous data protection (CDP) functionality to be tremendously valuable. In a situation of failure or corruption, CDP enables IT to go back to the point in time just before the failure/corruption occurred and restore the system to its correct state.

For example, CDP saved RSD in a situation where database corruption occurred in its Exchange server. At that point, about 20% of the company was not able to get email—a substantial problem, particularly as it occurred during business hours when there are many Exchange communications happening with RSD customers for orders, etc. CDP allowed RSD to roll back to the precise point in time before the corruption occurred and restore the databases with absolutely no data loss. Furthermore, this happened quickly—once database corruption was determined to be the issue, the RSD IT team needed only about 5-10 minutes to restore from CDP—without taking the system down.

THE RESULTS

FLEXIBILITY
Simplified management and the ability to do updates more effectively.

INCREASED PERFORMANCE
Dramatically increased performance for business-critical ERP system and Veeam backups.

HIGH AVAILABILITY/ ZERO DOWNTIME
100% uptime since DataCore software-defined storage was installed.

STORAGE DIVERSITY
DataCore software-defined storage enables numerous platforms from different vendors to seamlessly communicate.

UNPARALLELED DISASTER RECOVERY AND CONTINUOUS DATA PROTECTION
Instant recovery with no data loss.

COST SAVINGS
Reduction in server costs, cooling, maintenance and more.

> *DataCore has given us flexibility that most storage couldn't... It doesn't matter what hardware you put it on, it all just works.*

- Jim Barnes, CIO of RSD.

> *DataCore software-defined storage provides us with the ability to manage our hardware and do updates a lot more effectively than our previous setup, where we couldn't touch the equipment until after hours... We very rarely have to do anything with DataCore after hours.*

- Jim Barnes, CIO of RSD.

About StablePath

StablePath has nearly two decades of experience in the IT industry. They have built their reputation leveraging best-of-breed technology and services, and putting their unsurpassed technical expertise to work implementing the best solutions available to achieve their client's objectives.

StablePath's focus, people and approach sets them apart. They have an established track record and built a solid reputation. They have an approach to successfully deliver the solutions our clients demand. Irvine, CA office +1.866.754.3154.

Learn more www.stablepath.com

For additional information, please visit datacore.com or email info@datacore.com

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